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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2006-26675; Directorate Identifier 2006-NM-203-AD; Amendment 39-14864; AD 2006-26-06]
RIN 2120-AA64**

Airworthiness Directives; Boeing Model 777-200 and -300 Series Airplanes Equipped with Rolls-Royce Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 777-200 and -300 series airplanes equipped with Rolls-Royce engines. This AD requires repetitive inspections to detect cracks of the outer V-blades of the thrust reverser, and corrective action if necessary. This AD also provides for optional terminating action for the repetitive inspections. This AD results from reports of cracked outer V-blades in the thrust reversers. We are issuing this AD to prevent separation of a thrust reverser from the airplane during normal reverse thrust or during a refused takeoff, which could result in impact damage to other airplane areas. If a thrust reverser separates from the airplane during a refused takeoff, the engine could produce forward thrust, resulting in unexpected thrust asymmetry and a possible runway excursion.

DATES: This AD becomes effective January 11, 2007.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of January 11, 2007.

We must receive comments on this AD by February 26, 2007.

ADDRESSES: Use one of the following addresses to submit comments on this AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-401, Washington, DC 20590.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Gary Oltman, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6443; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We have received reports of cracked outer V-blades in the Rolls-Royce engine thrust reversers on Boeing Model 777-200 and -300 series airplanes. The cracks were found in the top and bottom ends of the V-blade. The outer V-blade engages the aft end of the engine fan case to transmit fore and aft loads from the thrust reversers. Initial analysis of the V-blade did not include bending loads, and consequently the fatigue margins were not sufficient. A thrust reverser that separates from the airplane during normal reverse thrust or refused takeoff can damage other airplane areas. If a thrust reverser separates from the airplane during a refused takeoff, the engine could produce forward thrust, resulting in unexpected thrust asymmetry and a possible runway excursion.

Relevant Service Information

We have reviewed Boeing Special Attention Service Bulletin 777-78-0064, Revision 1, dated November 30, 2006. The service bulletin describes procedures for doing repetitive detailed inspections to detect cracks in the outer V-blade of the thrust reverser, replacing cracked V-blades with serviceable parts, and sending a report of the inspection results to Boeing. The compliance time for the initial inspection ranges from 250 to 6,000 flight cycles after the effective date of the AD, depending on the number of flight cycles on the V-blade, with repetitive intervals not to exceed 2,000 flight cycles from the last detailed inspection.

We have also reviewed Boeing Special Attention Service Bulletin 777-78-0061, dated July 6, 2006, which describes procedures for doing a special detailed inspection to detect cracks in the outer V-blade of the thrust reverser in addition to a special detailed (eddy current or fluorescent penetrant) inspection to detect cracks in the fay surface area of the lower chord of the torque box where the outer V-blade attaches. If a crack is found in the outer V-blade, a new configuration V-blade is installed. If no crack is found, the V-blade is changed and installed with new support brackets at the top and bottom ends. The service bulletin also specifies contacting Boeing for repair instructions for cracks found in the torque box lower chord.

Accomplishment of the actions specified in Special Attention Service Bulletin 777-78-0061 eliminates the need for the repetitive inspections of Special Attention Service Bulletin 777-78-0064.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other airplanes of the same type design. For this reason, we are issuing this AD to prevent separation of a thrust reverser from the airplane during normal reverse thrust or during a refused takeoff, which could result in impact damage to other airplane areas. If a thrust reverser separates from the airplane during a refused takeoff, the engine could produce forward thrust, resulting in unexpected thrust asymmetry and a possible runway excursion. This AD requires accomplishing the actions specified in Boeing Special Attention Service Bulletin 777-78-0064 described previously. This AD also provides for an optional terminating action for the repetitive inspections.

Difference Between the AD and Service Information

Boeing Special Attention Service Bulletin 777-78-0061 specifies to contact the manufacturer for instructions on how to repair certain conditions, but this AD requires repairing those conditions, if accomplished, in one of the following ways:

Using a method that we approve; or

Using data that meet the certification basis of the airplane, and that have been approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization whom we have authorized to approve repair methods.

Interim Action

We consider this AD interim action. We are considering mandating the optional terminating action specified in Boeing Special Attention Service Bulletin 777-78-0061, which terminates the repetitive inspections required by this AD. However, the planned compliance time for this terminating action would allow enough time to provide notice and opportunity for prior public comment on the merits of the actions.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists to make this AD effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any relevant written data, views, or arguments regarding this AD. Send your comments to an address listed in the ADDRESSES section. Include "Docket No. FAA-2006-26675; Directorate Identifier 2006-NM-203-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

Examining the Docket

You may examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the Docket Management System receives them.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):



2006-26-06 Boeing: Amendment 39-14864. Docket No. FAA-2006-26675; Directorate Identifier 2006-NM-203-AD.

Effective Date

- (a) This AD becomes effective January 11, 2007.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Boeing Model 777-200 and -300 series airplanes, certificated in any category, equipped with Rolls-Royce engines; as identified in Boeing Special Attention Service Bulletin 777-78-0064, Revision 1, dated November 30, 2006.

Unsafe Condition

(d) This AD results from reports of cracked outer V-blades in the thrust reversers. We are issuing this AD to prevent separation of a thrust reverser from the airplane during normal reverse thrust or during a refused takeoff, which could result in impact damage to other airplane areas. If a thrust reverser separates from the airplane during a refused takeoff, the engine could produce forward thrust, resulting in unexpected thrust asymmetry and a possible runway excursion.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Repetitive Inspections

(f) Do the detailed inspections to detect cracks in the outer V-blade of the thrust reversers. Do the inspections in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-78-0064, Revision 1, dated November 30, 2006. Do the inspections at the applicable times specified in paragraph 1.E. of the service bulletin; except, where the service bulletin specifies an initial compliance time after the date on the service bulletin, this AD requires compliance within the specified time after the effective date of this AD. Do applicable corrective actions before further flight in accordance with the service bulletin or paragraph (h) of this AD.

(g) Actions done before the effective date of this AD in accordance with Boeing Special Attention Service Bulletin 777-78-0064, dated August 7, 2006, are acceptable for compliance with the requirements of paragraph (f) of this AD.

Report

(h) At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, send a report of the findings (both positive and negative) of each inspection required by paragraph (f) of this AD to the Manager, Seattle Aircraft Certification Office (ACO), FAA. The report must include the information specified in Appendix A of Boeing Special Attention Service Bulletin 777-78-0064, Revision 1, dated November 30, 2006. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements contained in this AD and has assigned OMB Control Number 2120-0056.

(1) For all inspections done after the effective date of this AD: Send the report within 10 days after the inspection.

(2) For any inspection done before the effective date of this AD: Send the report within 10 days after the effective date of this AD.

Optional Terminating Action

(i) Accomplishment of the applicable inspections and related investigative/corrective actions, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-78-0061, dated July 6, 2006, terminates the requirements of this AD; except, where the service bulletin specifies to contact the manufacturer for appropriate action, repair before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle ACO, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane.

Material Incorporated by Reference

(k) You must use Boeing Special Attention Service Bulletin 777-78-0064, Revision 1, dated November 30, 2006, to perform the actions that are required by this AD, unless the AD specifies otherwise. If the optional terminating action is accomplished, you must use Boeing Special Attention Service Bulletin 777-78-0061, dated July 6, 2006, to perform the optional terminating actions specified in this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 14, 2006.

Stephen P. Boyd, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
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